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October 9, 1991

Environmental Branch

Mr. Ken Hagg
Woodward-Clyde Consultants
2318 Millpark Drive
St. Louis, Missouri 63043

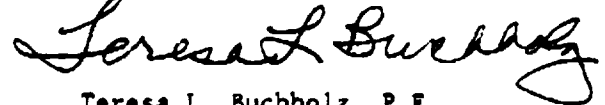
Dear Mr. Hagg.

Please reference the N.L. Industries/Taracorp Superfund Project covered in your U.S. Army Corps of Engineers Indefinite Delivery Contract No. DACW43-90-C-0008.

Enclosed you will find our comments concerning the Chemical Data Acquisition Plan (CDAP) and the Architect-Engineer Site Safety and Health Plan (SSHP), which were submitted by Woodward-Clyde Consultants on August 22, 1991.

As discussed earlier, there is a pre-mobilization planning meeting conference call scheduled for October 10th at 9:00 am. If you have any questions concerning our comments please feel to call me at (402) 221-7654.

Sincerely,



Teresa L. Buchholz, P.E.
Project Manager

Enclosure

Copies Furnished:
CEMRO-ED-GC/
CEMRO-ED-GF/Boardman
CEMRO-ED-EF/Frye
CEMRO-ED-EG/George

N.L. Industries/Taracorp Superfund Site
Granite City, Illinois

Comments concerning the ARCHITECT-ENGINEER SITE SAFETY AND HEALTH PLAN (SSHP)

1. General

- a. Per 1910.120 and the CEMRO Health and Safety Scope of Work, use the terminology Site Safety and Health Plan (SSHP) rather than Health and Safety Plan (HASP). Correct this terminology in all cases in both the SSHP and the CDAP.
- b. The SSHP shall be signed and dated by the CIH prior to submittal.
- c. A list of types of monitoring equipment to be used on site should be provided, including maintenance and calibration requirements. Manufacturers specifications should also be included for all monitoring equipment.
- d. Tri-City Trucking has been sold to BV&G Trucking. Please change all references to Tri-City Trucking to BV&G Trucking.
- e. A table of abbreviations similar to the table in the CDAP would be helpful.
- f. Decontamination water and well purge water shall be collected and disposed of at the SLLR pile.
- g. A written Spill Containment Program does not appear to be necessary for this project, however, this should be stated in the SSHP.

2. Page 3, Section 3.1, first line

Since the project boundaries extend north of Granite City, the sentence should state that the "... site is located in and near the cities of Granite City..."

3. Page 3, Section 3.2, second line

The sentence should read "... (currently owned by Taracorp, Trust 454, Rich Oil, and BV&G Transport, formerly known as Tri-City Trucking), the ..."

4. Page 3, Section 3.2, second paragraph

- a. (First line) The estimate of 40 acres may be inaccurate.
- b. (Second line) Replace "SLLR pile" with "Trust 454", because this reference the actual location and not specifically the SLLR pile.
- c. This paragraph should not be referring to the Taracorp, Trust 454, and BV&G Trucking locations as "sites." The word site should only be used when referring to the NL Site as a whole.

5. Page 3-4, Section 3.2, last line

Sentence should read, "... consists primarily of hard rubber battery case material."

6. Page 4, Section 3.2

- a. The residential area consists of "approximately 55 city blocks."
- b. The residential areas are also located in Venice, Illinois.
- c. The smelting operation should be referred to as the NL Industries and Taracorp lead smelting operation.
- d. Discussion of the remote fill locations is incorrect. This discussion should be the same as the CDAP, page 36, section 4.2.3.1, paragraph 1.

- e. Delete "completed in 1988" from the ROD discussion.
 - f. Should state "One requirement of the ROD is the removal of all soils ..."
 - g. (last sentence) Should read, "The remediated areas will then be restored to a condition similar to their original state."
7. Page 5, Section 4.1
- a. (First line) Should state "The remedial design site investigation..."
 - b. (Second line) Replace "levels" with "vertical".
8. Page 6, Sections 4.4 & 4.5
- a. The word adjacent should be in " ". (e.g. the "adjacent" residential areas...)
 - b. In the remote fill areas of the surrounding communities, two HAB should be drilled in each of the four discrete areas. These four areas include (1) Illinois Route 3, south of Pontoon Road (2) Illinois Route 3, South of Interstate 270, (3) 2230 Cleveland Ave, and (4) Along Chain-of-Rocks Road, near Sand Road. A total of two samples will be taken from each HAB at 0-6 inches, and 6-12 inches (16 analytical samples). Proposed locations of all the HABs and soil borings will be discussed in the CDAP. This is an additional 4 analytical samples, not detailed in the Scope of Services. One soil boring will be taken at each site (4 sites) for the purpose of volume determination. Borings will be drilled to the bottom of the hard rubber plus one foot.
 - c. Six areas within Eagle Park Acres are to be sampled. Three hand auger borings will be required in each area as per the Scope of Services. Four samples per HAB will be analyzed for total lead. Also, one soil boring per location shall be installed and logged per area to aide in the determination of the fill volume. All HAB and Boring locations will be outlined in the CDAP.
 - d. In the 5 Venice alleys, one soil boring per alley will be installed to aide in the determination of the fill volume.
9. Page 7, Section 4.7, second sentence
- This sentence is confusing, please clarify.
10. Page 8, Section 5.1
- a. (Fifth line) Should read "MCLs".
 - b. (sixth line) There are not MCLs established for lead or arsenic. The MCLs for lead are "proposed" levels, and arsenic does not have a MCL.
 - c. The first reference to Table 1 should state that the tables are found in a separate section. Although the table of contents does show this, it is easier if the reader is reminded of this fact.
11. Page 9, Section 5.2
- More than just a record review should be performed to locate underground utilities. Electric, sewer, etc..., lines should be positively located and marked by the local utility companies or by WWC after consultation with the utility companies.
12. Page 12, Section 6.1
- "Home Interior Inspections" should be added to the bullet list in this section.

13. Page 14, Section 7.1

a. State in the document that the 40-hour health and safety training will fulfill the requirements of 29 CFR 1910.120.

b. The medical surveillance should meet the requirement of 1910.120. State that the physical exam protocols in section 3.0 and 4.0 of WCC's health and Safety manual meet those required in 29 CFR 1910.120.

c. Specify specialized medical monitoring which will be done in accordance with 29 CFR 1910.1025 as it pertains to blood level testing.

14. Page 17, Section 7.8

Does the definition of "visitors" include the residents and homeowners? This is a sensitive subject and provisions should be made to accommodate the property owners and residents of the property whenever possible.

15. Page 19, Section 8.3

Justify in the document why not site control measures will be necessary.

16. Page 20, Section 8.6

The levels of protection should not only reflect the job task but also the concentrations of lead in the work zones. The problem with the NL Site is that the concentrations of lead vary widely with location. Therefore, the area should be divided into smaller exclusion zones and a level of protection assigned for each job task within the particular zone.

17. Page 20, Section 8.6.1, last bullet

Specify that work boots will also have a steel shank.

18. Page 22, Section 8.7

List a portable eyewash and give its capacity and duration.

19. Page 22 & 23, Sections 8.9

There are two (2) section 8.9s. Please renumber the paragraphs.

20. Page 23, the first Section 8.9

A description of the symptoms of exposure should be explained.

21. Page 24, Section 8.9.2, first sentence

Decontamination in the residential areas should be very low key. A suggestion would be to have a poly tank mounted on a pick-up truck for the collection of decontamination water. The decontamination water should then be transferred to the SLIR pile and disposed of at this location. Plastic trash bags should be used to dispose of disposable gloves, tyveks, etc...

22. Page 28, Section 9.1

a. Printing all the OSHA requirements for excavation seem to be a bit excessive for shallow borings and soil sampling. Since workers are required to read and understand the SSHP prior to working on-site, it might save time and questions (say, concerning shoring) to just print or give references to any applicable sections in the regulation.

b. Sometimes site workers can be a bit overwhelmed if a SSHP becomes too voluminous and they tend to gloss through the SSHP, and may risk overlooking pertinent safety information. Printing excessive amounts of unnecessary material

increases this tendency.

23. Page 29, Section 10.1

- a. Clarify what is meant by "appropriate immediate response".
- b. The emergency contacts that are listed in Table 2 are quite excessive. Three fire departments are listed. Prior to work on-site, the local fire department (or appropriate response agency) should be advised of the work to be performed and what conditions could arise should there be a fire or explosion on-site. Identify which of the three fire departments is the primary contact in case of emergency.
- c. Decontamination procedures during an emergency should also be addressed in this section.
- d. Indicate that the first aid kits meet the requirements of 29 CFR 1926.50.

24. Page 29, Section 10.2

The Site is more than the location of Taracorp's operations, but includes the residential areas as well.

25. Page 30

Add a section which states that the personnel should not receive final clearance to work at the Site until they meet the health and safety provisions of sections 7.1 - 7.3.

26. Table 1

There are a few errors in IDLH values given. From the 1991 NIOSH Pocket Guide to Hazardous Chemicals:

<u>Contaminant</u>	<u>IDLH Value</u>
Cadmium (dust)	Ca
Chromium metals	N.E.
Chromium (soluble)	N.E.
Manganese	N.E.
Selenium	unknown

N.E. - no evidence found for the existence of IDLH conditions.

N.L. Industries/Taracorp Superfund Site
Granite City, Illinois

Comments concerning the DRAFT CHEMICAL DATA ACQUISITION PLAN (CDAP)

1. General

a. Glossary - Terms should be consistent in all Remedial design documentation with previous project reports. For example, the ROD refers to the NL/Taracorp Site as the NL Site. Please be consistent with all acronyms.

b. All report covers should be changed to read "Corps of Engineers, Omaha District" (not Division).

c. Suggestion - Place tabs at appropriate positions in the documents for easy reference.

d. All comments which were made concerning the SSHP also pertain to the CDAP (when applicable).

2. Page 1, Section 1.1

a. (line 4) The NL Industries/Taracorp Superfund Site is located in Granite City, Madison, and Venice, Illinois.

b. (number 3.) Should read, "Perform an interior visual inspection of residences for which access is obtained within the ..."

3. Page 4, Section 1.2.2.2

a. (line 2) Must verify that none of the southernmost residential areas are in Venice before this statement is made.

b. When referring to the home and lot sizes please use qualitative terms. Small to moderate can be ambiguous terms.

c. (line 4) Should read, "contamination in the soil is a direct result ..."

4. Page 5, Section 1.3.2, first line

Delete "half".

5. Page 6, Section 1.3.4, starting at line

a. (line 4) Should read, "... residential areas, and removal of battery case materials from alleys and driveways

b. (last line) Please add, ", a bottom liner will be constructed under the new sections of the Taracorp pile."

6. Page 6, Section 1.4

Corrective action should be replaced with remedial action.

7. Page 7, Section 1.4.1

a. (first line) Should read, "... removal of soil and battery casing material from ..."

b. (second line) Insert, " , and the removal of battery case material from alleys and driveways." after "respectively."

c. Mention the home interior inspections in this section.

8. Page 9, Section 2.1, first bullet

Replace "Taracorp/SLIR" with "NL".

9. Page 11, Section 2.2.1.3

The data needs indicates collection of 1860 soil samples, the Scope of Services indicates closer to 8000.

10. Page 15, Section 2.2.5.1

Please clarify why the groundwater samples are being screened.

11. Page 17, Section 2.3.1.2

Why is it stated that the QA samples will be taken at the rate of 5%. We are of the understanding that it was to be the regulatory 10%.

12. Page 22, Section 3.1.5

State whether the Health and Safety Officer is a certified Industrial Hygienist.

13. Page 26, Section 3.3

All personnel will have regulatory and job specific training prior to coming to the site. On the job training is a contractor responsibility. Only qualified personnel profiles need to be covered in the CDAP.

14. Page 27, Section 4.0

The first two sentences should be rewritten so that it is clear that the RI/FS was adequate for its intended purpose, but additional information is needed for the remedial design. Rewrite this to read, "The remedial design will require field work to supplement the data presented in the RI/FS reports (O'Brien and Gere, 1989) prepared for the NL Site."

15. Page 28, Section 4.1.2

a. The information to be included in the "communication material" needs to be discussed between USEPA, IEPA, USACE, and WWC.

b. In addition to notifying the IEPA of initial resident contact, copies of the "communication material" should be submitted to IEPA prior to its public release.

16. Page 30, Section 4.1.5

a. At a future date the USACE will prepare a summary of the results from the home interior inspections, and provide this summary to all residences in the zone of contamination. After preparing this summary the USACE will submit the summary to both the USEPA and IEPA for approval. This would require a modification to WWC's contract.

b. (line 4) Insert ", along with recommended ways to reduce exposure to this contamination." after "household."

17. Page 30, Section 4.2

Please add the word "metals" in the sentence: "... and determine contamination levels for priority pollutant metals."

18. Page 31, Section 4.2.1.1 (last paragraph)

This paragraph is both unclear and inaccurate. TCLP is the new standard in characterizing the toxicity of hazardous materials, replacing EP Tox. Yet, TCLP lead testing is being done in order to further characterize the soil on the NL Site.

19. Page 32, Section 4.2.1.1
- Please define "each of the residential areas."
 - Samples will be "homogenized".
20. Page 34, Section 4.2.2.1
- (top of page) Add the depth of the soil borings to the sentence: "A total of fifteen soil borings around the pile will be used to determine the horizontal and vertical extent of contamination over 100 ppm."
 - (first full paragraph) Please state what the intended depth of the well is to be.
 - (last paragraph) Change "priority pollutant analytes" to "target compound list."
 - Geotechnical testing was discussed on this page; however, there is no mention of consolidation testing, if clays are identified. This is a requirement in the Scope of Services.
21. Page 35, Section 4.2.2.2
- Continuous-wrap screen not machine slotted screen should be used.
 - Need to be specific at this point or call out an SOP. Why is it assumed that the development water will exhibit a low level of contamination? Does IEPA and USEPA agree with this type of deposition of decontamination water? Has the discharge of development water been approved by the IEPA and USEPA?
 - Monitoring wells should be registered with the Illinois Department of Public Health (IDPH), and if a well is abandoned IDPH will be notified. Also, upon abandonment of a monitoring well, proper documentation should be filed with the IDPH.
22. Page 35, Section 4.2.2.3
- Concerning the disposal of the drill cutting the following comment has been noted by the IEPA: "Some of the wastes will be regulated by the Resource Conservation and Recovery Act (RCRA), (IEPA delegated program), which is defined in the Illinois Environmental Protection Act (ACT). Within the ACT, RCRA wastes are further defined in: Title 35: Environmental Protection, Subtitle G Waste Disposal, Chapter I: Pollution Control Board - Volumes I through IV. Obviously not all parts of Subtitle G will be applicable as an ARAR to this particular situation; however, any activities related to regulated wastes generated, stored at, or removed from this site are required to comply with Subtitle G. The particular areas which should be addressed are the following:
- Subtitle G, parts 721 and 808 which defines "Characteristically Hazardous Waste and Special Waste", respectively.
 - Standards Applicable to Generators of Hazardous Waste (Subtitle G, Part 722)
 - Standards Applicable to transporters of Hazardous Waste (Subtitle G, Part 723)
 - Standards for owners and Operators of Hazardous Waste treatment, Storage, and Disposal Facilities (Subtitle G, Part 724)
 - Disposal and Decontamination of Equipment, Structures and Soils (Subtitle G, Part 725.214)
 - Special Waste Hauling (Subtitle G, Part 809)

23. Page 36, Section 4.2.3 (line 5)
Add "with the exception of alleys and driveways, which will be excavated based on visual criteria, backfilled, and paved."
24. Page 36, Section 4.2.3.1 (last paragraph)
It is true that samples will not be taken from the road areas listed; however, these areas are to be inspected and mapped to determine the approximate volume of fill material to be excavated (if any). Please clarify.
25. Page 37, Section 4.2.3.2
Be specific and call out the appropriate SOP's.
26. Page 37, Section 4.2.3.3.
Be specific and call out any appropriate SOP's. Cutting disposal could be a SCP instead of repeating it several times.
27. Page 38, Section 4.2.4.1
Give an example of a sample ID.
28. Page 39, Section 4.3.1
Samples will be "shipped by carrier" and "transported by field personnel."
29. Page 39, Section 4.3.2
All borings will be continuously sampled using a 2 or 3-inch OD "stainless steel" split barrel sampler.
30. Page 43, Section 4.6.1
Each logbook change should be initialed " and signed by the recorder at the end of each day." Each page does not need to be signed and dated.
31. Page 44, Section 4.6.3 & 4.6.4
State the appropriate job title, not qualified WCC personnel.
32. Page 44, Sections 4.6.3 thru 4.6.6
State that the procedures are located in the SOP's.
33. Page 45, Section 4.6.9
When will the DCQRs be forwarded to the QA/QC officer?
34. Page 47, Section 4.9
a. The A-E shall notify the USACE project manager of nonconformances as soon as possible. It is expected that this be within 48 hours. Please include this in this section.
b. Are there any provisions for back-up or replacement equipment?
35. Page 48, Section 5.3
In the evaluation of proposed borrow areas there is no mention concerning the permeability requirement of 1×10^{-7} cm/sec.
36. Page 50, Section 6.0
What about an SOP for sample shipment?
37. Page 50, Section 6.2.1

All personnel involved with the sample collection must sign the chain of custody.

38. Page 52, Section 6.3

- a. There should be chain of custody seals affixed to each cooler with clear tape.
- b. How will the coolers be sealed and secured prior to releasing to the carrier.
- c. how will the coolers be documented when the lab receives them.

39. Page 54, Section 7.1.2

Please include after the sentence "It is anticipated that these reporting limits will be achieved for the majority of samples. However any samples not meeting the limits will be documented."

40. Page 63, Section 8.0, 4th paragraph

Typo - Please omit ";" in "and interact with the; laboratory..."

41. Table 2

- a. The number of QA samples listed are only 50. These should be 10% of the samples tested. Refer to scope of services tables 1-1 - 1-7 for the proper number of QA samples.
- b. Please address how you arrived at 202 samples for the school and public facilities. i.e how many samples from each of the areas.
- c. The number of QC samples are higher than what was scoped in Eagle park acres, lead; Sand road, lead; and all taracorp sites. Please clarify.
- d. The number of QA samples at the taracorp site are not the same as listed in the scope. Please clarify.

42. Table 3

Please address the above comments in table three also.

43. Table 5

- a. For the specific conductivity meter, is this calibrated prior to sampling each well or each sample?
- b. What kind of temperature calibration will be followed?

44. Table 8, page 5

The reporting limits for pesticides are quite a bit higher than the method practical quantitation limits. Please clarify.

45. Table ~~8~~ Page 6

Typo: the method for Mercury is 7470 instead of 74710.

46. Figure No. 3, Project Organizational Chart

Change the USACE project manager to Terry Buchholz.

47. Page 2-2, Section 2.1 (SOP 1)

Add the chain of custody seals to the list.

48. Page 2-4, Section 2.3.2 (SOP 1)

- a. The split spoon sampler will be a "stainless steel split spoon sampler"